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09/299,596	04/27/1999	TONG HYONG LEE	0630-0913P	3472

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EXAMINER	
KARMIS, STEFANOS	

ART UNIT	PAPER NUMBER
3624	

DATE MAILED: 10/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/299,596	LEE, TONG HYONG	
	Examiner	Art Unit	
	Stefano Karmis	3624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 April 1999* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *5* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. The following application has been reviewed. Original claims 1-33 are pending. The objection and rejections are as stated below:

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-19, 21-22 and 26-33 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Davis et al. (hereinafter Davis) U.S. Patent 6,311,167.

Regarding independent claim 1, Davis discloses an apparatus for storing an electronic money comprising a portable terminal having an integrally formed electronic money card which is capable of storing a balance of the same using a radio communication or a storing unit (column 18, line 43 thru column 19, line 17).

Claim 2, wherein said electronic money card includes means for using personal information (column 22, lines 29-59).

Regarding independent claim 3, Davis discloses a radio signal receiving block for receiving a radio signal and judging whether the receives signal corresponds to a general information or a balance storing information, a memory block for storing a storing amount, a content and a certification information (column 13, lines 7-27); a computation logic block for storing a balance storing data extracted from the balance storing information into the memory block when a balance storing information transmitted from the radio signal receiving block is a proper signal and a non-contact block for storing a balance storing amount into the memory block using a card storing unit and reading a balance storing amount of the memory block when paying the money (column 13, lines 7-27).

Claim 4, the computation logic block is designed so that a certain amount data is stored into the memory block only when first and second balance storing information are all received from the radio signal receiving block (column 18, lines 1-15).

Claim 5, the radio receiving block contains a key input unit for inputting a certain key signal (column 14, lines 50-67); a display unit for displaying a general information or a balance storing information as a character or digit (column 12, lines 25-30); a control means for decrypting an output signal of the high frequency processing unit, transmitting to the display unit, transmitting to the computation block in the case that the information is the balance storing

information or is a balance storing content check key signal from the key input unit, receiving a balance storing content information and displaying the same on the display unit (column 20, lines 36-55); and a tone signal generator for generating a call sound or an error sound during the balance storing operation by the control means (column 23, lines 4-14).

Claim 6, the control means is designed to check whether there is a certain pattern signal in an output signal of the high frequency processing unit, judge whether the information corresponds to a common radio information or a balance storing information, format the information into a certain format corresponding to the computation logic block when there is a certain pattern signal, and the balance storing information is judged, judge whether there is an error signal, and transmit the formatted information to the computation logic block when there is not a transmission error (column 13, lines 7-54).

Claim 7,the non-contact block includes a modulation and demodulation unit for performing a signal transmitting and receiving operation with a card storing unit or a card reader; and a non-contact computation unit for storing a balance storing data into the memory block at the modulation and demodulation unit in the case of the balance storing operation, reading the balance storing data stored in the memory block in the case of the payment and transmitting the read data to the modulation and demodulation (column 8, lines 15-35).

Column 8, the computation logic block includes: control means for summing the balance of the memory block and the balance storing amount in the case that various certification

information extracted during the balance storing operation and the previously stored various certification information are coincided for thereby judging as a proper subscriber, storing the balance storing data into the memory block when the summed amount is below a certain amount and transmitting a data to a radio signal receiving block in order to generate an error and error sound when the summed amount exceeds a certain amount; and a radio interface unit for implementing a data transmitting and receiving operation between the radio signal receiving block and the control means (column 18, lines 1-28).

Claim 9, the control means is designed to decrypt an output signal of the radio signal receiving block, extract a certification information in the case of the service stop signal, disables the memory block when the extracted certification information is coincided with the previously stored certification information, and stop the service of the card (column 17, lines 29-50 and column 18, lines 1-28).

Regarding independent claim 10, Davis discloses a radio signal receiving block for receiving a radio signal, judging whether the received radio signal corresponds to a general information or a balance storing information, a memory block for storing a storing amount, a content, and a certification information (column 13, lines 7-27); a modulation and demodulation unit for Implementing a signal transmitting and receiving operation with a card storing unit; and a computation logic block for storing a balance storing data Into the memory block when various certification information extracted from a balance storing information transmitted from the radio signal receiving block during the balance storing operation are judged as a proper information,

storing the balance storing data of the modulation and demodulation unit into the memory block and reading the amount data as much as the amount confirmed by the modulation and demodulation unit during the payment operation from the memory block and paying via the modulation and demodulation unit (column 8, lines 15-35 and column 13, lines 7-27).

Claim 11, the computation logic block is designed to receive first and second balance storing information from the radio signal receiving block and store the amount data into the memory block only when the balance storing information are all proper (column 13, lines 7-27).

Claims 12 and 13, the process comes to completion when the logic block is designed to stop the service of the terminal when a proper first balance account information is received from the radio signal receiving block or when a balance storing cancellation information is received from the radio signal receiving block during the balance storing operation (column 22, lines 29-59).

Claim 14, the computation logic block includes a control means for decrypting a balance storing Information based on a radio transmission method, storing the balance storing data into the memory block in the case of the proper subscriber, storing the balance storing data based on a non contact method, reading the amount data as much as the amount confirmed during the payment and transmitting via the non-contact interface unit; a radio interface unit for implementing a data transmitting and receiving operation with the control means, and a non-contact interface unit for implementing a signal transmitting and receiving operation between the

modulation and demodulation unit and the control means (column 8, lines 15-35 and column 18, lines 1-28).

Claim 15 the control means is designed to disable the operation of the memory block in the case that an output signal from the radio signal receiving block is judged to be a proper service stop signal, and stop the operation of the modulation and demodulation unit for thereby stopping the service of the card (column 22, line 60 thru column 23 line, 14).

Regarding independent claim 16, Davis discloses a high frequency processing means for receiving a radio signal and converting the received radio signal into a digital signal (column 12, lines 47-67); a modulation and demodulation means for implementing a signal transmitting and receiving operation with a card storing unit or a card reader (column 8, lines 15-35); a memory block for storing a storing amount, a content and a certification information (column 22, lines 29-59); and a control means for receiving an output signal from the high frequency processing means, storing the balance storing data into the memory block when various certification information extracted from the amount information are coincided with the previously stored various certification information in the case of the balance storing information, checking the balance storing data inputted from the modulation and demodulation, storing into the memory block, reading a certain amount of money as much as the amount confirmed by the modulation and demodulation during the payment operation and then paying the money (column 18, lines 1-28).

Regarding independent claim 17, Davis discloses a first step for judging whether a received radio signal corresponds to a balance storing information a second step for extracting various certification information in the case of the balance storing information, and judging whether a subscriber is a proper subscriber and a third step for storing the amount data extracted from the balance storing information in the case of the proper subscriber (column 2, lines 32-67).

Claim 18, the information is judged to be a balance storing information when there is a certain pattern signal in the received radio signal (column 11, lines 12-44).

Claim 19, a first step for extracting a radio signal receiving block serial number from the balance storing information and judging whether the extracted serial number is coincided with the previously stored serial number, a second step for reading a counter value contained in the balance storing information in the case that the serial numbers are coincided and judging whether the read counter value is coincided with a counter value of a function for the previously stored encryption; a third step for judging whether the serial key value outputted via the encryption process in which the counter values are coincided is coincided with the previously stored key value; and a fourth step for judging that a subscriber is a proper subscriber when the key values are coincided (column 9, line 9 thru column 10, line 62).

Claim 21, a first step for summing the current amount and a storing amount in the case of the proper subscriber and judging whether the summed amount is below a certain amount; a second step for judging whether the summed amount obtained by summing the current balance storing amount and the recent radio balance storing amount is coincided with the summed amount contained in the balance storing information based on the radio transmission method in the case that the summed amount is below a certain amount; a third step for storing the balance storing data in the case of the coincidence of the summed amount; and a fourth step for judging the signal as a balance storing error in the case that the summed amount is greater than a certain amount or the summed amount is not coincided (column 18, lines 1-28).

Claim 22, a step for displaying the current storing amount and the storing amount contents when the balance storing data is stored (column 18, lines 1-28).

Regarding independent claim 26, Davis discloses a first step for judging whether a received radio signal corresponds to a personal information update information or not; a second step for extracting a certain variable in the case of the personal information update information and comparing the extracted variable with a certain variable transmitted during the personal information update; and a third step for updating a personal information when the currently transmitted variable is greater than the previously transmitted variable (column 21, line 28 thru column 22, line 11).

Regarding independent claim 27, Davis discloses a first step or judging a received balance storing information corresponds to a first balance storing information; a second step for judging a proper signal by performing a certification of the first balance storing information in the case of the first balance storing information; a third step for setting a temporary service stop state in the case of the proper signal and waiting a receiving of a second balance storing information; a fourth step for performing a certification of the second balance storing information when the second balance storing information is received and judging a proper signal; and a fifth step for storing a request amount in the case of the proper signal and implementing an available state of the card (column 21, line 28 thru column 22, line 11).

Claim 28, a step for completing a balance storing operation when a proper balance storing cancellation information is received after the first balance storing information is received (column 22, lines 29-59).

Claim 29, the second certification step includes: a first step for extracting the storing request amount from the first balance storing information, summing the thusly extracted amount and the balance, and judging whether the summed amount is greater than the storing limit amount; a second step for encrypting the value as a certain key value when the summed amount is the same as a is smaller than the string limit amount and judging whether the vale is coincided with the value extracted from the first balance storing information; and a third step for encrypting the first balance storing information as a certain key value when the encrypted value

is coincided with the extracted value and changing to a decimal value and displaying the decimal value (column 22, lines 29-59).

Claim 30, the third encryption step is performed using a certain key value provided from the first and second certification providers (column 14, lines 50-67).

Claim 31, the fourth step certification step includes a first step for formatting the data contained in the second balance storing information and encrypting using a certain key value of the certification provider; a second step for judging whether the encrypted value is coincided with the encrypted value contained in the second balance storing information; and a third step for judging the signal as a proper signal in the case that the encrypted values are coincided (column 13, lines 7-54).

Claims 32 and 33,the certain key value is provided from a second certification provided, not from a radio communication service provider and is previously stored (column 14, lines 50-67).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 20 and 23-25 rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al. (hereinafter Davis) U.S. Patent 6,311,167.

Claim 20, Davis teaches that the decryption process begins when a message is received (column 18, lines 1-15). Davis fails to teach that the decryption process of the balance storing information is implemented when the counter value extracted from the balance storing information is coincided with the counter value for the previously stored decryption. Official Notice is taken that decryption is old and well known in the art. Therefore it would have been

obvious to someone of ordinary skill in the art that the decryption process can begin based on multiple criteria because it allows for a more efficient system based on the architecture of the system.

Regarding independent claims 23-25, Davis teaches comparing extracted information from radio signals with previous account information and comparing whether the extracted information is coincided with the previously stored certification information when judging the card service stop or release information; and a third step for releasing a card service stop when the certification information is coincided (column 22, lines 29-59). Davis fails to teach judging whether a card service stop or release information is received based on balance storing information. Official Notice is taken, that stopping and releasing card services is old and well known in the art. Therefore it would have been obvious at the time of the Applicants' invention to modify the teachings to include stop and release information based on balance storing information because it is the criteria to move to the next step while storing balance information in the system and thus makes the system more efficient by recognizing when actions are needed to take place.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Pieterse et al., US Patent 5,714,741 Feb. 3, 1998. Device for transparent interaction between an IC Card and a remote terminal.

b) Daggar, US Patent 5,748,737 May 5, 1998. Multimedia electronic wallet with generic card.

c) Stanford et al., US Patent 5,930,363 Jul. 27, 1999. Card charging systems.

d) Yazumi et al., US Patent 6,032,858 Mar. 7, 2000. Electronic money storing apparatus and IC Card control method.

e) Dahm et al., US Patent 6,466,783 Oct. 15, 2002. Visual interface to mobile subscriber account services.

f) Takami et al., US patent 6,536,661 Mar. 25, 2003. Electronic moeny transaction system with a radio transmitter and receiver using a portable telephone.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefano Karmis whose telephone number is (703) 305-8130. The examiner can normally be reached on M-F: 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on (703) 308-1065. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-1113.

Respectfully Submitted
Stefano Karmis
October 16, 2003

HANI M. KAZIMI
PRIMARY EXAMINER